

D 2004P02857US



PATENT

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PATENT APPLICATION

In re Application of) Group Art Unit: 2809
Anton Dambacher et. al.) Examiner: Donald L. Raleigh
Serial No.: 10/524,429) Paper No.
Filed: February 15, 2006)
For: Electrode System For A High-Pressure Discharge Lamp

CERTIFICATE OF MAILING 37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450 on the date April 14, 2008

_____, signed William E. Meyer

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

LETTER- STATUS REQUEST

Dear Sir:

The Applicant received a Notice of Abandonment in the above case (copy attached). The Notice states the Office Action of 14 September 2007 was not timely responded to. A timely response was filed. A copy is enclosed with a copy of the stamped return post card indicating timely receipt by the Office. It is the Applicant's belief that the Notice of Abandonment should be withdrawn, the Office Action response entered and responded to accordingly. No time deduction should be made regarding the life of any patent that might issue.

Respectfully Submitted;

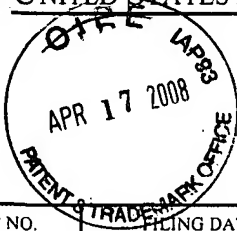
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/524,429

02/15/2005

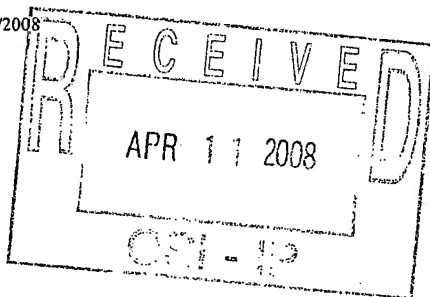
Anton Dambacher

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04/09/2008



EXAMINER

RALEIGH, DONALD L

ART UNIT	PAPER NUMBER
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2879

MAIL DATE	DELIVERY MODE
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04/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



Notice of Abandonment

Application No.

10/524,429

Examiner

DONALD L. RALEIGH

Applicant(s)

DAMBACHER ET AL.

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 14 September 2007.
 - (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
 - (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
 - (c) ☐ A reply was received on _____ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
 - (d) ☒ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
 - (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
 - (b) ☐ The submitted fee of \$_____ is insufficient. A balance of \$_____ is due.
The issue fee required by 37 CFR 1.18 is \$_____. The publication fee, if required by 37 CFR 1.18(d), is \$_____.
 - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
 - (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
 - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☐ The reason(s) below:

/Mariceli Santiago/
Primary Examiner, Art Unit 2879

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

In re Application of)

Group Art Unit: 2809

Anton Dambacher et. al.)

Examiner: Donald L. Raleigh

Serial No.: 10/524,429)

Paper No.

Filed: February 15, 2006)

For: Electrode System For A High-Pressure Discharge Lamp

CERTIFICATE OF MAILING 37 CFR 1.8(a)

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Date

Dec. 12, 2007

Signed

William E. Meyer

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

AMENDMENT A

Introductory Comments

Dear Sir:

In response to the Office Action dated September 14, 2007, please make the following amendments.

CLAIM AMENDMENTS

1. (Currently amended) An electrode system (13) for a high-pressure discharge lamp, at least comprising an electrode, which has a pin-shaped shank (4) with a ~~filament (5)~~ fitted in the vicinity of the discharge-side free end and a connection part (8) connected to the shank (4), and an encircling the connection part is a winding (11) being mechanically fitted to the connection part, and encircling the shank in the vicinity of the discharge-side free end and mechanically fitted to the discharge-side free end is a filament in the form of a winding, characterized in that filament (5) and winding (11) are integrally connected to one another via a spacer (41).
2. (Original) The electrode system as claimed in claim 1, characterized in that the diameter DA of the connection part is 50% to 400% of the diameter DS of the shank.
3. (Original) The electrode system as claimed in claim 1, characterized in that filament (5) and winding (11) are separate parts which are rigidly connected to one another.
4. (Original) The electrode system as claimed in claim 1, characterized in that filament (5) and winding (11) form an integral structural unit.
5. (Original) The electrode system as claimed in claim 3 or 4, characterized in that filament and winding are connected to one another via a winding interruption (24) as the spacer.
6. (Original) The electrode system as claimed in claim 1, characterized in that the connection part is a separate part.
7. (Original) The electrode system as claimed in claim 1, characterized in that the connection part is an integral extension of the shank.

8. (Original) The electrode system as claimed in claim 7, characterized in that at least the shank consists of high-melting, electrically conductive material, preferably of tungsten or tantalum alone or predominantly of tungsten or tantalum.
9. (Original) The electrode system as claimed in claim 6, characterized in that the connection part consists of molybdenum, niobium, electrically conductive cermet alone or predominantly of one or an alloy of these materials.
10. (Original) The electrode system as claimed in claim 1, characterized in that filament (5) and winding (11) consist of the same material.
11. (Original) The electrode system as claimed in claim 1, characterized in that filament and winding consist of molybdenum and/or tungsten.
12. (Original) The electrode system as claimed in claim 1, characterized in that filament and winding have the same pitch.
13. (Original) The electrode system as claimed in claim 1, characterized in that the electrode system comprises a front piece, in which filament and winding are symmetrical with respect to one another.
14. (Original) The electrode system as claimed in claim 1, characterized in that at least one further winding or coiled formation is fitted onto the winding (11) or a part thereof.
15. (Original) The electrode system as claimed in claim 1, characterized in that the connection part forms a first part of a leadthrough.
16. (Original) The electrode system as claimed in claim 15, characterized in that the leadthrough also comprises a second, end part, which in particular is a niobium pin.

17. (Original) The electrode system as claimed in claim 1, characterized in that the connection part has substantially the same diameter as the shank, and in particular in that their diameters differ by less than 30%.
18. (Original) The electrode system as claimed in one of the preceding claims, characterized in that the diameter of the spacer is locally reduced.
19. (Original) The electrode system as claimed in claim 1, characterized in that the height of the winding (11) is reduced at the end remote from the discharge.
20. (Original) A high-pressure discharge lamp having at least one electrode system as claimed in claim 1, the lamp having a discharge vessel (2) with two ends, the electrode system being inserted into one or both of these ends of the discharge vessel, the discharge vessel (2) being produced in particular from ceramic.

CLAIM STATUS:

Claims 1 (Currently amended)

Claims 2 - 20: (Original)

REMARKS

The Office Action of September 14, 2007, and the cited art have been carefully considered. The recognition of allowable subject matter in claims 2, 3, 8 and 9 is gratefully acknowledged. The application has been amended to eliminate unnecessary limitations and to correct grammatical and similar errors. Reconsideration of the rejection of the application is respectfully requested based on the amendments and following discussion.

REJECTION 102:

1. Claims 1-6, 8-13 and 15-20 were rejected under 35 USC 102(b) as anticipated by Lenz US 2004/0135511.

Lenz '511 shows an electrode structure with a filament winding formed on the end of the electrode shank 16. The filament is unidentified in all views, but is apparent to those skilled in the art as the winding attached to the discharge end of the electrode shank 16. The filament and the shank 16 are separate mechanical items, made of separate materials. Shank 16 is tungsten (par. 0031, line 4) The filament is tightly wound on the shank. Lenz' '511 further shows a connection winding 10, 23, 33 wound on the shank 16 near the base of the shank. The connection winding 10, 23, 33 is made of molybdenum (par. 0034, last line; par. 0035, last line). Again the connection winding and the shank are separate mechanical elements with the connection winding tightly wound on the shank. The connection winding is made from molybdenum because it has nearly the same thermal expansion characteristic of the quartz, or ceramic material to which it is sealed. The tungsten shank has a differing thermal expansion and does not seal well to the quartz or ceramic. The shank must be made of tungsten to sustain the very high electrode tip temperature where the arc attaches. Molybdenum must then be used as the interface to the quartz to match the thermal expansions. Tungsten must then be used as the electrode. It is then a necessary feature of the Lenz lamp that the connection winding and the shank cannot be the same material.

The Office Action suggests the filament winding and the shank and the connection winding are all of one piece. This is not true. As disclosed by Lenz the shank is tungsten, and the connection winding is molybdenum. This is not new. This is common practice, and understood to be good engineering by lamp designers. Lenz discloses a separate shank, a separate filament and a separate connection winding - three pieces. They cannot be one piece as discussed. No one knows how to make them as a single piece that can be sealed to quartz and endure the tip temperature. The Examiner's imaginative reading is an invention not yet

achieved. The filament and the winding in Lenz are not the same entities. They are not parts of the shank. They are not integrally connected by a spacer.

Lenz '511 fails to provide a prima facie case of invalidity under 35 USC 102, since Lenz '511 fails to show, suggest, state or claim a limitation included in Applicants' claims. Lenz '511 fails to teach the **"...filament (5) and winding (11) are integrally connected to one another via a spacer (41)..."**. Withdrawal of the rejection and reconsideration of the rejected claims are therefore respectfully requested.

REJECTION 103:

2. Claim 7 was rejected under 35 USC 103 over US Lenz '511 in view of Huettinger US 6,075,314.

The rejection of Claim 7 as being unpatentable under 35 U.S.C. 103 as being obvious over the combination of Lenz '511 in view of Huettinger '314 is respectfully traversed and reconsideration thereof is requested.

Huettinger '314 shows an electrode structure with an integral connection part and shank. Huettinger '314 fails to teach the **"...filament (5) and winding (11) are integrally connected to one another via a spacer (41)..."**.

Huettinger uses a separate filament winding and a separate connection winding. Neither Lenz '511 nor Huettinger '314 shows, teaches or suggests the connection of the filament to the connection winding by a spacer element. In combination, Lenz '511 and Huettinger '314 cannot show, teach or suggest the connection by a spacer element when neither shows the spacer element.

3. Claim 14 was rejected under 35 USC 103 over US Lenz '511 in view of Matthews US 5,357,167.

The rejection of Claim 14 as being unpatentable under 35 U.S.C. 103 as being obvious over the combination of Lenz '511 in view of Matthews '167 is respectfully traversed and reconsideration thereof is requested.

Matthews '167 shows an electrode structure with a filament winding formed on the shank. Matthews '167 fails to teach the **"...filament (5) and winding (11) are integrally connected to one another via a spacer (41)..."**.


Matthews '167 uses two filament windings, one on top of the other. Matthews '167 does not use a connection winding, so Matthews '167 cannot show, teach or suggest connecting a filament winding to a connection winding with a spacer. Neither Lenz '511 nor Matthews '167 shows, teaches or suggests the connection of the filament to the connection winding by a spacer. In combination, Lenz '511 and Matthews '167 cannot show, teach or suggest the connection by a spacer when neither shows the spacer.

In the art cited by the Examiner, the resulting electrode structure and alignment is almost always asymmetrical between the two lamp electrodes. The operation of two lamps can be fairly compared if the electrodes are asymmetrically constructed. Fine tuning of the ballast, lamp fill, envelope structure and so on cannot be fairly compared if the electrodes are inconsistently formed. Consistent lamp operation cannot be achieved if the electrodes are irregular or asymmetrical.

In contrast, the Applicant assures the two windings on the electrodes may be symmetrical constructed and positioned, enhancing the likelihood of consistent operation of the lamp. Neither Lenz '511 or Huettinger '314 show, teach or suggest how to consistently position the connection winding relative to the filament winding, locking the two as a consistent unit. The Applicant realized and solved the problem. Withdrawal of the rejection and reconsideration of the rejected claims are therefore respectfully requested.

It is believed that a full and complete response to the Office Action has been made, that the Application as amended is patentably distinct over the cited art, and that the case is now in condition to be passed to issue. Reconsideration of the amended application is therefore requested, and an early favorable notice of allowance is courteously solicited.

Respectfully submitted,

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Ser. No.: *10/524,429*

Receipt is acknowledged of a paper in the application of:

Inventor: *Antor Bombacher*

Ser. No.: *10/524,429*

Filing Date: *2-15-2006*

For: *Electrode System for a High-Pressure Discharge Lamp*

Docket: *2004P0285743*



me Discharge Lamp

1. Office Action Response - 7 pages
2. Post Card.



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